United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report

Case Number
0500-0614

Case Title:
Village of Crestwood, IL

Reporting Office:
Chicago, IL, Area Office

Subject of Report:
Meeting with (b) (6), (b) (7)(C) on June 10, 2013

Activity Date:
June 10, 2013

Reporting Official and Date:
(b) (6), (b) (7)(C)
Special Agent
02-JUL-2013, Signed by: (b) (6), (b) (7)(C)

Approving Official and Date:
(b) (6), (b) (7)(C)
Special Agent in Charge
02-JUL-2013, Approved by: (b) (6), (b) (7)(C)
Acting Assistant Special Agent in Charge

SYNOPSIS

On June 10, 2013, Special Agent (b) (6), (b) (7)(C) of the U.S. Environmental Protection Agency Criminal Investigation Division met with (b) (6), (b) (7)(C) of the Illinois Environmental Protection Agency. The purpose of this meeting was to discuss a variety of issues relating to the well that was previously used by the Village of Crestwood, IL.

DETAILS

On June 10, 2013, Special Agent (b) (6), (b) (7)(C) of the U.S. Environmental Protection Agency Criminal Investigation Division met with (b) (6), (b) (7)(C) of the Illinois Environmental Protection Agency. Also present for this meeting were Assistant United States Attorney Timothy Chapman, Regional Criminal Enforcement Counsel (b) (6), (b) (7)(C), and (b) (6), (b) (7)(C) of the Illinois Environmental Protection Agency. This meeting was conducted at the offices of the Illinois Environmental Protection Agency in Springfield, IL. This meeting was previously scheduled between AUSA Chapman and (b) (6), (b) (7)

The purpose of this meeting was to discuss a variety of issues relating to the well that was previously used by the Village of Crestwood, IL. After the discovery of its use, (b) (6), (b) (7) was involved in the IEPA's response to the well use, both in determining what if any exposure Crestwood residents may have had by utilizing the well water, as well as providing information to the public about the well and possible contaminants.

In summary and not verbatim unless otherwise noted, (b) (6), (b) (7) provided the following information:

(b) (6), (b) (7) is currently employed as the Deputy Division Manager for the Division of Public Water Supplies for the IEPA. After the discovery of the well use in Crestwood, (b) (6), (b) (7) was one of many people who helped compile fact sheets, along with updates, which were provided to the public to keep them informed about the IEPA findings with respect to the well.

(b) (6), (b) (7) stated that the well in Crestwood was installed through layers of sand and gravel, and then eventually bedrock. The casing of the well runs to the depth of the sand and gravel layers, and then stops. Once the well is beyond the bedrock, the well opening is much larger, and there is no well casing. (b) (6), (b) (7) stated that it is a standard engineering practice for the well casing to only go so deep, and then stop. The bedrock in the area of the Crestwood well is approximately 47 feet deep. The top of the bedrock in the area is fractured. The fractures in the bedrock decrease as you go further down into the bedrock. (b) (6), (b) (7) stated that he obtained this information from several borings that were taken near the well by an IEPA contractor in 2009, and that he has also obtained soil layer

information from the State Water Survey. The Playfield Cleaners, which is the suspected source of the chemicals, also hired a contractor in approximately 1998.

With respect to the vinyl chloride which was found in the well, (b) (6), (b) (7) stated that the breakdown from the parent chemical to the vinyl chloride can take up to 30 years. The breakdown of the chemical occurs due to bacteria and oxygen exposure to the chemical. With respect to the concentration levels in the well of vinyl chloride, (b) (6), (b) (7) stated that it was not likely that the levels would fluctuate over time. Rather, the contamination in the well would likely continue to decrease over time. Assuming a constant source of contamination, due to hydro dynamic dispersion, the contamination levels would lessen based upon time and distance.

(b) (6), (b) (7) was aware that the water holding tanks in Crestwood were not equipped to mix the water that was coming in from the well, and from the City of Chicago. There would have been a possibility that the water coming into the tanks may not have mixed, and a quantity of mostly well water could have come from the holding tanks, directly into the distribution system.

(b) (6), (b) (7) indicated that, had the IEPA known that the well was in use, a number of things would have been changed with respect to Crestwood's drinking water system. First, the entry point into the distribution system would have changed locations, and the IEPA would likely have required chlorination at a different point. Crestwood would have also been subject to significant additional testing, which would have also included testing for volatile organic compounds, synthetic organic chemicals, as well as radiation. Based upon this additional testing, it is likely that Crestwood officials would have detected the vinyl chloride in the well water.

Had Crestwood detected the vinyl chloride due to the enhanced sampling schedule, officials would have reviewed older results, coupled with a recent detect, and then resampled the drinking water to reconfirm the positive vinyl chloride results. At this point, the IEPA would have instructed Crestwood that they could no longer distribute the water at the detected levels, based upon being very close to, or exceeding the maximum contaminant level.

Had the IEPA instructed Crestwood that they could not utilize the water with high vinyl chloride levels, the village officials would have had two choices. They could begin to treat the water that contained vinyl chloride, or they could abandon the well entirely, which Crestwood officials did in 2007. The village would also not have been able to use the well for an emergency backup if the IEPA had known that the vinyl chloride levels were high, unless the well water was being treated for vinyl chloride.

(b) (6), (b) (7) was asked if Crestwood could have used a dilution process, mixing the well water with lake water, in order to continue pumping from the well. (b) (6), (b) (7) indicated that Crestwood would have been required to conduct a study in order to show that the water within the storage tanks was mixing properly. (b) (6), (b) (7) indicated that this likely would not have worked, and that the village may still have had problems remaining in compliance with a dilution process. There are no specific IEPA regulations with respect to a dilution process, so the agency retains broad authority over how such a process would be implemented.

In terms of treating for vinyl chloride, Crestwood could have set up a treatment system, which would have been utilized to treat only the well water. Crestwood would still have been required to

mix the well water in the storage tanks, and then monitor the water after the mixing tanks. The village would also have been subject to the additional monitoring requirements, due to the fact that they would still have been utilizing groundwater with this process.

(b) (6), (b) (7) indicated that the difference in vinyl chloride results could be accounted for due to a variety of factors. Leaving the lid off of a sample jar, or a different amount of head space in the sample jar could cause a variation. Also, issues relating to the laboratory conducting the analysis, or collection issues, could account for variations in the vinyl chloride levels. (b) (6), (b) (7) indicated that the difference between 3 and 5 parts per million is not a significant difference in the overall levels.

Following the interview, on June 11, 2013, (b) (6), (b) (7) emailed several documents relating to this meeting to SA (b) (6), (b) (7)(C) Those documents are attached to this IAR.

ATTACHMENT

CRA lab results98.pdf
1993_Report 123_Page 14.pdf
1993 Research Report 123.pdf
1998_01_04 CRA Letter.pdf